



### Course analysis (course evaluation)

<b>Course code</b> 1BIO43	<b>Course title</b> Biostatistics	<b>Credits</b> 4.5
<b>Semester (VT/HT-yr)</b> HT-22	<b>Dates</b> 29/8-14/9	

<b>Course Director</b> Matteo Bottai	<b>Examiner</b> Matteo Bottai
<b>Teachers in charge of different parts of the course</b> Pär Villner	<b>Other participating teachers</b> -

<b>Number of registered students at the 3-week check</b> 57	<b>Number passed at final course day</b> 47	<b>Response frequency course valuation survey</b> 27
--	--	---

**Other methods for student influence**  
(in addition to the final course valuation/survey)  
Oral feedback session after week 1.

**Feedback reporting of the course evaluation results to the students**  
2022-11-15

**Note that...**

The analysis should (together with a summarising quantitative summary of the students' course evaluation) be communicated to the education committee at the department responsible for the course and for programme courses also to the programme coordinating committee.

The analysis was communicated to the education committee on the following date:  
The analysis was communicated to the programme coordinating committee on the following date:  
2022-11-15

### 1. Description of any changes implemented since the previous course occasion based on the views of former students

Previous lecturers suggested that linear regression and logistic regression should be part of the course. Linear regression was implemented this time. Personally, I am sceptical of introducing logistic regression. The course is filled with content already and logistic regression is a difficult topic that the students will learn about in their third year anyway.

Students (and teachers) have also thought that the exam has been too easy previous years, so the exam was slightly more difficult this time. Students in previous years have suggested that the labs should be more connected to the content of the lectures. One of the labs was remade to accomodate for this and two labs were modified. But as we will see below, more changes in the labs are needed.

### 2. Brief summary of the students' evaluation of the course

The quantitative answers are attached. As we can see, the opinions are on average positive, but there are several weaknesses in the course that the students pointed out in free-text answers.

The main complaint is that the labs are too difficult and not always related to the lectures. This has been a complaint previous years as well. As a lecturer, I wholeheartedly agree with the criticism.

Several students also would have liked to see more demonstrations of R during the lectures. I agree with this and for this reason, I started to implement R demonstrations in my lectures at the second part of the course. It should have been done from the first lecture.

### **3. The Course Director's reflections on the implementation and results of the course**

#### **Strengths of the course:**

The course has a great structure. The material in the course gives a solid foundation to understand the basics of statistics applied in research. Learning more advanced stuff based on this foundation is easy.

#### **Weaknesses of the course:**

The connection between the labs and the lectures should be stronger. There should also be less emphasis on math and more on intuition in the lectures. In my view, the labs should be remade completely: they should focus less on advanced data-wrangling and more on traditional statistical methods; and they should use data sets well-suited to the methods that are taught (this is currently not always the case, in particular not in lab 7). Based on the exam results, the students had difficulties understanding non-parametric methods. This is in large part due to the fact that my lecture on this topic was not clear enough, and the lab on non-parametric methods was hard for the students to grasp. I think that a problem may have been that too many non-parametric methods were discussed.

### **3. Other views**

It was clear that many students really enjoyed this course. Several of them asked for advice on how to improve their skills in data analysis when the course was over, and a few have even applied for internships at the Unit of Biostatistics.

### **4. Course Director's conclusions and any suggestions for changes**

The main item to change for the future is the computer labs. As already stated, they focus way too much on advanced data-wrangling. I also think it would be good if the lecturer for next year is informed about the structure of the biomedicine program and what role statistical methods play in future courses that the students will take. For instance, I first assumed that data-wrangling is a major part of later courses in the program, since it is so heavily emphasized in the labs in this course, but apparently this is not the case.

#### **Appendices:**